ENVIRONMENTAL ASSESSMENT
EQIP – EASTERN SANGRE DE CRISTO MOUNTAIN WATERSHED
2002

INTRODUCTION

This environmental assessment (EA) is being prepared by the United States Department of Agriculture Natural Resources Conservation Service (NRCS) to comply with the requirements of the National Environmental Policy Act of 1969 and implementing regulations at 40 CFR Parts 1500-1508. The EA will assist NRCS in determining whether the proposed action will have a significant impact on the quality of the human environment and therefore requires preparation of an Environmental Impact Statement.

NEED FOR PROPOSED ACTION

Purpose of and Need for Action: There is a need in the Sangre De Cristo Mountain Watershed to improve the dense timber stands within the watershed. Thinning of these stands will improve water quality and reduce soil erosion by improving the ground cover, improve wildlife habitat and reduce wildfire fuel reduction.

Background: There was a Local Work Group meeting held at which the concerns of this GPA proposal were addressed. Groups from 5 counties attended this meeting. Watershed management due to the dense stands of trees was a major resource concern and fires from last summer warranted the wildfire fuel reduction.

This proposal is located on the Eastern slopes of the Sangre De Cristo Mountains that covers 3 counties, totaling 1,673,500 acres. Approximately 139,000 acres (8%) of the total acreage, all privately owned, has planned treatments.

This problem was intensified last summer after all the wildfires. Wildfire fuel reduction was a big concern. This also expands on watershed management from the Galinas Watershed where forest thinning is helping with reduction of soil erosion and sediment deposition. *I*ncreasing the forage production will improve wildlife habitat mainly big game species such as elk, deer and turkey, although other wildlife species will also benefit.

With most of the landowners already harvesting some of this timber at random, by selectively harvesting the timber could improve the quality of the timber and increase revenues for landowners.

ALTERNATIVES:

Alternative 1. No Action

Alternative 2. Proposed Action. Use NRCS Environmental Quality Incentives Program (EQIP) authorities to assist landowners in the Sangre De Cristo Mountain

Watershed.Geographic Priority Area (GPA) to apply conservation systems that include timber thinning, brush management, ponds, fences, seeding, livestock and wildlife watering facilities, prescribed grazing, upland wildlife habitat management. The latter two practices are management type practices that will help maintain the improved ground cover.

ALTERNATIVES CONSIDERED BUT NOT STUDIED IN DETAIL:

At the local work group meeting there were no other alternatives discussed.

SCOPING OF ISSUES FOR UNIQUE AND PROTECTED RESOURCES IN THE AREA:

NRCS conducted a review of the area to identify unique and protected resources and other special issues of concern. Members of the public had an opportunity to provide comments and identify concerns during the April 25, 2001 meeting, of the Local Work Group. No controversy about the need for action or the actions themselves was raised during these meetings, and no resources or issues of concern were identified during the meetings or by NRCS or other Federal, State, and Tribal agencies but those discussed in this EA.

Cultural Resources and Historic Properties: NRCS completed a search of cultural resource records and the density of such sites is medium in the GPA. A total of 1404 sites were identified both prehistoric and historic. In this area of New Mexico the historic sites included homesteads and the Old Santa Fe Trail. To ensure that none of the sites are adversely affected, NRCS will conduct a pedestrian survey and avoid the site identified.

Threatened and Endangered Species and Species of Concern: A record search shows the following species on the ESA, black-footed ferret, black-tailed Prairie dog, Mexican spotted owl, mountain plover, piping plover, southwestern willow flycatcher, Holy Ghost ipomopsis and the whooping crane. The Mexican spotted owl is a species listed as endangered under the ESA. It lives in mixed conifer forest stands. The USFS has conducted surveys of the Mexican spotted owl on the federally owned land and has identified 7-10 Protective Active Center (PAC). On the privately owned lands and more specific the 8% of the total GPA area there is probably a 5% potential habitat for the Mexican Spotted Owl. Potential habitat on project areas will be evaluated for suitability for owls. If suitable, then protocol surveys will be done to determine presence of the owl. Negative surveys will result in a no effect determination by NRCS. The presence of spotted owl will trigger a consultation with FWS. Recovery plans for Mexican spotted owl, will be used on any PACs identified.

The county lists of Threatened and Endangered Species list several other species, but NRCS has determined that none of these will be affected by any alternatives or actions considered in the EA.

Wetlands: NRCS has identified several wetland throughout the GPA These areas will be avoided if they fall within the project area and/or a buffer strip will be left between. NRCS has determined that none of these will be affected by any alternatives or actions considered in the EA.

IMPACTS AND EFFECTS OF ALTERNATIVES:

Table 1 compares the overall effects of each of the alternatives discussed below.

Alternative 1. No Action

Landowners will continue to cut timber randomly and without following a conservation plan, without NRCS guidance. Trees will continue to encroach onto rangeland areas, thus reducing forage for both livestock and wildlife. Forest stands will get more dense continuing to add more fuel load for wildfires making it more dangerous to control fires to protect people and homes in forested areas. Surface water quality will continue to decline as the ground cover will not improve without properly thinning the trees to allow sunlight to reach the ground surface to produce grass. Mexican spotted owl habitat could be endangered if areas are not known and landowners continue to cut timber randomly.

Alternative 2. There is a total of 1,673,500 acres within this watershed, of which 17,000 acres could be treated with the funding available from the EQIP funding in this proposal. This is less than 1% of the total watershed receiving treatment to protect the watershed. The entire watershed would benefit from the conservation systems to be installed The application of conservation systems would include forest stand thinning, watering facilities for both livestock and wildlife, seeding and fencing to help improve ground cover, and management practices that would aid in grazing.

This alternative would include Forest Stand Improvement, which would harvest/cut dense stands of timber and small diameter trees, approximately 15,000 acres are planned to be harvested.. The DBH of trees would range from 1”to 11 inches. It would manipulate species composition, stand structure, and stocking by cutting selected trees and under story vegetation. Trees could be cut by hand or with heavy equipment depending on slope, slopes range from 5 to 40 % and other factors. The slash could be removed or laid down to rot and aid in the nutrient cycle and protect new grass seedlings, or piled and burned. This practice would not cause excessive erosion, compaction or rutting. Slash or debris may be left on the ground or be removed.

Another similar practice is Tree and Shrub pruning, this would remove all or part of selected branches from trees or shrubs. Branches would be cut with chain saw or hand saw with very little ground disturbance. Again, slash could be removed, laid down, or branches could be piled and burned.

Seeding could apply to some areas using native species to help restore the ecosystem back to its natural state. This would apply if the area being thinned has no grass or shrub

species as a seed source. Seed would be broadcasted by hand or aerial over the thinned area with no ground disturbance.

Ponds are water impoundments made by constructing a dam or embankment, or excavating a pit. It would be constructed using heavy equipment, generally disturbing approximately 1-2 acres

If pipelines are used to aid in watering facilities, then a trench will be excavated for pipe. Ground disturbance is generally .6 acres/mile.

Troughs will be installed by setting tanks on top of ground for water control to provide drinking water for livestock and wildlife, with minimum ground disturbance.

To aid in livestock control fences will be installed. Fence post will be pounded into the ground and corner posts will be dug with post hole digger, 8-12 inch dia and 3ft depth. Area where fence route is planned will be pruned of branches a width of 10 ft., this would equal 1.2 acres/mile.

With the above practices being installed facilitates the management conservation practices such as, a) prescribed grazing-which controls the harvest of vegetation by grazing or browsing animals, managed with intent to achieve a specific objective. Thus, providing for b) upland wildlife habitat management which retains, creates, or manage habitat for wildlife.

TABLE 1. Comparison of conservation work with and without EQIP funding

	Treatment with NRCS assistance	**Treatment by Landowner Initiative, Forest Service and NRCS Assistance**
Forest Stand Improvement	500 acres	20,000 acres
Tree & Shrub Pruning	750 acres	5,000 acres
Ponds	3 each	15
Pipelines	1,000 ft	5,000 ft
Troughs	3 each	12
Fence	1,000 ft	6,000 ft
Range Seeding	0	3,000 ft
Prescribed Grazing	1,000 acres	15,000 acres
Upland Wildlife Habitat Mgmt.	1,000 acres	15,000 acres

There is no prime or unique farmland involved in this GPA.

Other effects were considered in the discussions, but the effects in Table 2 relate to the needs and are the only ones used for comparison to make the final decision.

T ABLE 2. Comparison of Alternatives.

Comparison of Alternatives Effects on Needs				
Alternatives	**Improved Ground Cover %**	**Forage Production Increase lbs.**	**Soil Loss Ton/Ac**	**Installation Costs $**
1. **No Action**	20%	200 lbs	2T	0
2. **Forest Stand Improvement with Conservation Practices and Management**	60%	800 lbs	T	$985,000

PERSONS AND AGENCIES CONSULTED:

Local work group and attendees of April 25, 2001 meeting where this proposal was discussed and formulated. See list of participants attached as Appendix A.

David Seery
State Wildlife Biologist
NRCS
Albuquerque, NM

NMDG&F - database

USFWS - database

Marian Revitte
State Cultural Resources Specialist
NRCS
Albuquerque, NM

John Tunberg
Rangeland Management Specialist
NRCS
Albuquerque, NM

US Forest Service – Ranger District Biologist

REFERENCES:

NRCS Field Office Technical Guide, Section III, Quality Criteria

NRCS Field Office Technical Guide, Section IV, Standards and Specifications

NMSU, Cooperative Ext. Service, Creating Wildfire-Defensible Zones

Finding of No Significant Impact
For the Implementation of EQIP
In the Eastern Sangre De Cristo Mountain Watershed

INTRODUCTION

The Eastern Sangre De Cristo Mountain Watershed is a federally assisted action under the Environmental Quality Incentive Program (EQIP), with assistance from the Natural Resources Conservation Service (NRCS). An environmental assessment was undertaken in connection with the development of this proposed action. This assessment was conducted with Local, State and Federal agencies. Data developed during the assessment are available, upon request, from:

U.S. Department of Agriculture
Natural Resources Conservation Service
Mora Field Office
Mora, New Mexico

The Environmental Assessment (EA) is attached for reference.

DETERMINATION OF SIGNIFICANCE

Table 3. Determination of Significance of Proposed Action.

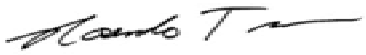
CONTEXT	INTENSITY	REASON FOR NON-SIGNIFICANCE
Acres thinned 1% of total GPA	20 year life until next thinning cycle	Could burn with severe weather conditions
Wildfire Reduction And increase defensible space 1% of watershed area	50-70% of fuels would be cleared	May burn untreated along with treated during severe weather
Surface water runoff 8% of total GPA	40% of surface runoff absorbed by vegetation upstream before reaching live streams	Surface runoff only during moderate to high rain events

Other considerations related to context and intensity are discussed as follows: Lands are similar through-out the watershed and are not unique compared to other lands in the state. No issues or concerns have been expressed at any public meeting, so controversy is small. Results of actions are known from past experience in the area, thus uncertainty and risk is low. Precedent for future action will be very limited because nearly all landowners interested in this proposal are going to participate in the first round. There will be no impact to National Register of Historic Places or cultural resources because

homesteads and historic areas will be avoided. A determination of may affect but not likely to adversely affect the Mexican spotted owl has been made. No national, state, local, or tribal laws will be violated by this action.

Finding of No Significant Impact:

This finding is based on the evidence presented in the environmental assessment of impacts and alternatives for this geographic priority area. Based on the assessment and the reasons given in table 2, I find that the alternatives analyzed in the EA will have no significant impact on the quality of the human environment. Therefore, an environmental impact statement will not be prepared.



ROSENDO TREVINO
State Conservationist

December 20, 2001
Date